Memorandum

To: Libby Area Technical Assistant Group, Inc.

From: Gordon Sullivan, Contracted Technical Advisor

Regarding: Board request for a "short summary" of the EPA *Final Technical Memorandum, Containment Screening Study Post Clean-up Evaluation Sampling.*

Date: November 9,2004

Pursuant to your approval I have studied the EPA *Technical Memorandum, Containment Screening Study Post Clean-up Evaluation Sampling* document, consulted with CDM to some degree on the contents of the document and would like to make the following summary remarks for your information.

The document follows a long and arduous process engaged in by the EPA to provide evidence that the assigned Clean-up criteria as established in the *Libby Asbestos Site Residential/Commercial Cleanup Action Level and Clearance Criteria, Technical Memorandum, issued December 2003* is both effective and protective as it relates to the Libby homes that have been cleanup thus far.

The Containment Screening Study effectively addresses re-testing and analysis of a total of 31 Libby homes at different durations after original cleanup. The homes represent a good cross section of representative properties wherein cleanup has occurred and therefore provides a good data base for any assumptions.

Of the 31 properties only 4 show any appreciable sign of LA presence after cleanup and these levels are very low.

Summary Conclusions:

Summary Point One:

The study results indicate that both the cleanup criteria and the actions levels selected for interior are effective for are effective and are therefore protective at least for the duration of time between actual cleanup and six months thereafter and for what might be considered "normal" living environments. (normal daily activities). The study was performed under what has been determined a " non-aggressive" sampling criteria meant to simulate normal daily activities.

This type of sampling although useful to represent normal conditions the model assumes that this level of activity will always remain the case.

Recommendations:

I believe the sampling model should be expanded to include a couple of scenarios that might develop around a normal living environment;

1) A child crawling at low levels on a carpet that has been cleaned. This information will address the possible emission of LA fibers from carpets while under a more active and potentially dangerous pattern of use.

2) The model should be expanded to include the removal of a carpet that has been cleaned. I would recommend that the EPA consider choosing one or two homes and remove the carpet six months after cleanup while running both personal and stationary monitors to determine if this relatively normal procedure might result in the release of LA fibers.

Summary Point Two:

It is most interesting to conclude from the results of the study that the EPA's position with regard to breeching walls in subject homes now shows merit. It has always been both my position as LATAG Technical Advisor and the EPA that breeching walls will exacerbate the potential and future fugitive release of LA fibers. The study provides some evidence for this position in that of the properties that showed any release of fibers two, 143 Crossway Ave and 2293 Kootenai River Road were under remodel and as the EPA cleanup process went on the cleanup contract identified the removal of certain wall coverings within the areas where remodeling was to be preformed.

This assumption should be better qualified possibly by further sampling however as it stands it should alert us about the additional exposure problems that might be associated with interior remodel.

The results do show a much greater degree of concern is necessary when a resident identifies future remodel plans.

Summary Point Three:

During the cleanup season of 2003 the amount of attic detailing was cut back to some degree resulting in the saving of much needed funds. The process of attic encapsulation is well identified under the Response Action Work Plan and has not changed appreciably. The study results indicate that any small particles of material that are not removed from an attic and are contained by use of encapsulate remains inset and therefore contained for at least the duration of time indicated by the CSS Post Cleanup Evaluation Sampling Study (6 months).

Summary Point Four:

The minimum detection limit for air samples was set at 0.0001 structures per cubic centimeter (S/cc) and only four properties approached or exceeded that limit for either LA or total asbestos. Even more interesting is the fact the minimum detection limit for dust was set at 500 S/cm2 when the action level under the *Libby Asbestos Site Residential/Commercial Cleanup Criteria, Technical Memorandum* is 5000 AHERA S/cm2 citation: (page 4, Section 5 Action Levels - Interiors.) The highest structure level within the CSS study was 418 S/cm2.

Conclusion:

This is a long awaited study that has been well designed from the on set and has now added credibility to some important decision on the project. It can get much better as time goes on as different modeling elements are brought to bear.